



PCT

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/509,131

DATE: 10/05/2004

TIME: 10:47:37

Input Set : A:\PTO.FG.txt

Output Set: N:\CRF4\10052004\J509131.raw

3 <110> APPLICANT: Biogen Idec Inc.  
 4 McLachlan, Karen  
 5 Gately, Dennis  
 7 <120> TITLE OF INVENTION: NOVEL GENE TARGETS AND LIGANDS THAT BIND THERETO FOR  
 TREATMENT AND  
 8 DIAGNOSIS OF COLON CARCINOMAS  
 10 <130> FILE REFERENCE: 037003-0302886  
 C--> 12 <140> CURRENT APPLICATION NUMBER: US/10/509,131  
 C--> 13 <141> CURRENT FILING DATE: 2004-09-28  
 15 <150> PRIOR APPLICATION NUMBER: US 60/367,727  
 16 <151> PRIOR FILING DATE: 2002-03-28  
 18 <150> PRIOR APPLICATION NUMBER: US 60/381,328  
 19 <151> PRIOR FILING DATE: 2002-05-20  
 21 <150> PRIOR APPLICATION NUMBER: US 60/386,747  
 22 <151> PRIOR FILING DATE: 2002-06-10  
 24 <150> PRIOR APPLICATION NUMBER: US 60/427,564  
 25 <151> PRIOR FILING DATE: 2002-11-20  
 27 <160> NUMBER OF SEQ ID NOS: 67  
 29 <170> SOFTWARE: PatentIn version 3.1  
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 32 <211> LENGTH: 149  
 33 <212> TYPE: DNA  
 34 <213> ORGANISM: Homo sapiens  
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 39 gaggggtgagg ccaaggagga cctgagagaa ggtaattaga tttggtgttt acaggctggt 120  
 41 ccctgtggcc agccacccca cccacttta 149  
 44 <210> SEQ ID NO: 2  
 45 <211> LENGTH: 679  
 46 <212> TYPE: DNA  
 47 <213> ORGANISM: Homo sapiens  
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 54 gaaatgttga tttaggaggt attgccttcg agaagataaa ggaggagaag aggagagcat 180  
 56 catgcaagct agagaagaga aagaagaaaa gtattctggg gaatgtctcc tttgggagca 240  
 58 gaaagaagac tctgacggag cagccatcca ggaagtggaa tgagatccag gagaggaagg 300  
 60 agtttcagaa ggcaggagct ggtcctctat gtcatgaaat gtagagggtg aggccaagga 360  
 62 ggacctgaga gaaggtaatt agatttggtg tttacaggct ggtccctgtg gccagccacc 420  
 64 ccaccactt taaaatattt actctacaaa tgtaattgtg tgaagagttg catgccagaa 480  
 66 tatttatggc atcagtgttg gtggatacag aacattggga aacaacccat taatagcaga 540  
 68 atggtaaate tggccagtga atagtatagc tttttaaaag gaggctgatg tctgaattca 600  
 70 ctttcaaagt tgttcacaat gtattgctaa aatacaaaaa tgttgcagaa ccatatgtat 660  
 72 gagagaaacc cctttttct 679

(pg. 6)

**ENTERED**

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85 ttgtctgcag tgggtgctcct gcaggctgcc cgtaa      155
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96 aagcaactggc attcccggca acccaactgcc aagcagcggg tcattgacgt ggctgactgc      120
98 aaagaaaact tcaacactgt ggagcacatt gaggaggtgg cctataatgc actgtccttt      180
100 gtgtggaacg tgaatgaaga ggccaaggtg ttcacggcg taaactgtct gagcacagac      240
102 ttttctcac aaaagggggt gaagggtgtc cccctgaacc tgcagattga cacctatgac      300
104 tgtggcttgg gcactgagcg cctggtacac cgtgctgtct gccagatcaa gatcttctgt      360
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108 aagtgccctg actccagcaa cagtggcgctc aagggtgccc tgctgtcggg cttcaggggc      480
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114 agcagctcca acaggctgcc tctgaagcgt acctgctcgc ccttcaactga ggagtttgag      660
116 cctctgcctt ccaagcaggg caaggaaggc gaccttcaga gagttctgct gtatgtgcgg      720
118 agggagactg aggaggtggt tgacgcgctc atgttgaaaga cccagacct gaaggggctg      780
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122 aatgcaagc gaggaatctt agtcaacatg gacaacaaca tcattcagca ttacagcaac      900
124 cacgtcgctt tctgtctgga catgggggag ctggacggca aaattcagat catccttaag      960
126 gagctgtaag gcctctcgag catccaaacc ctacagacct gcaagggggc agcagggagc      1020
128 tggccccacg ccacacacaa cctctccaca tgccctcagc ctgttacttg aatgccttcc      1080
130 ctgaggggaag aggcccttga gtcacagacc cacagacgtc agggccaggg agagacctag      1140
132 ggggtccctt ggccctggatc cccatggtat gcttgaatct gctccctgaa ctctctgcca      1200
134 gtgctctccc gtacccccaa acaatgtcac catggttacc acctaccag aagactgttc      1260
136 cctctctccc agaccttgt ctgcagtggg gctcctgcag gctgcccgtt aagatgggtg      1320
138 cggcacacgc tccctccgc agcaccacgc cagctgggtgc ggccccact ctctgtcttc      1380
140 cttcaacttc agacaaagga tttctcaacc tttggtcagt taacttgaaa actcttgatt      1440
142 ttcagtgcaa atgactttta aaagacacta tattggagtc tctttctcag acttctcag      1500
144 cgcaggatgt aaatagcact aacgatcgac tggaaacaaag tgaccgctgt gtaaaactac      1560
146 tgccctgcca ctactgttg tatacatctt ttatttacga ttttcatttg ttatatatat      1620
148 atataaatat actgtatata tatgcaacat tttatatctt tcatggatat gtttttatca      1680
150 tttcaaaaaa tgtgtatttc acatttcttg gacttttttt agctgttatt cagtgatgca      1740
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156 <211> LENGTH: 322
157 <212> TYPE: PRT
158 <213> ORGANISM: Homo sapiens
160 <400> SEQUENCE: 5
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Input Set : A:\PTO.FG.txt

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163 1          5          10          15
166 Leu Arg Phe Trp Lys His Trp His Ser Arg Gln Pro Thr Ala Lys Gln
167          20          25          30
170 Arg Val Ile Asp Val Ala Asp Cys Lys Glu Asn Phe Asn Thr Val Glu
171          35          40          45
174 His Ile Glu Glu Val Ala Tyr Asn Ala Leu Ser Phe Val Trp Asn Val
175          50          55          60
178 Asn Glu Glu Ala Lys Val Phe Ile Gly Val Asn Cys Leu Ser Thr Asp
179 65          70          75          80
182 Phe Ser Ser Gln Lys Gly Val Lys Gly Val Pro Leu Asn Leu Gln Ile
183          85          90          95
186 Asp Thr Tyr Asp Cys Gly Leu Gly Thr Glu Arg Leu Val His Arg Ala
187          100          105          110
190 Val Cys Gln Ile Lys Ile Phe Cys Asp Lys Gly Ala Glu Arg Lys Met
191          115          120          125
194 Arg Asp Asp Glu Arg Lys Gln Phe Arg Arg Lys Val Lys Cys Pro Asp
195          130          135          140
198 Ser Ser Asn Ser Gly Val Lys Gly Cys Leu Leu Ser Gly Phe Arg Gly
199 145          150          155          160
202 Asn Glu Thr Thr Tyr Leu Arg Pro Glu Thr Asp Leu Glu Thr Pro Pro
203          165          170          175
206 Val Leu Phe Ile Pro Asn Val His Phe Ser Ser Leu Gln Arg Ser Gly
207          180          185          190
210 Gly Ala Ala Pro Ser Ala Gly Pro Ser Ser Ser Asn Arg Leu Pro Leu
211          195          200          205
214 Lys Arg Thr Cys Ser Pro Phe Thr Glu Glu Phe Glu Pro Leu Pro Ser
215          210          215          220
218 Lys Gln Ala Lys Glu Gly Asp Leu Gln Arg Val Leu Leu Tyr Val Arg
219 225          230          235          240
222 Arg Glu Thr Glu Glu Val Phe Asp Ala Leu Met Leu Lys Thr Pro Asp
223          245          250          255
226 Leu Lys Gly Leu Arg Asn Ala Ile Ser Glu Lys Tyr Gly Phe Pro Glu
227          260          265          270
230 Glu Asn Ile Tyr Lys Val Tyr Lys Cys Lys Arg Gly Ile Leu Val
231          275          280          285
234 Asn Met Asp Asn Asn Ile Ile Gln His Tyr Ser Asn His Val Ala Phe
235          290          295          300
238 Leu Leu Asp Met Gly Glu Leu Asp Gly Lys Ile Gln Ile Ile Leu Lys
239 305          310          315          320
242 Glu Leu
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247 <211> LENGTH: 1782
248 <212> TYPE: DNA
249 <213> ORGANISM: Homo sapiens
251 <400> SEQUENCE: 6
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254 tgccttctag gggcctagtg aggcttaagg gtgagcagca ggcacacaga aagctagaaa 120
256 tacaggatca ctgtgggacg gtggggctgg ccacctgggc aggccactta cccagcggcc 180
258 ccctctgtct ccaggtgttc atcggcgtaa actgtctgag cacagacttt tcctcacaaa 240

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260 aggggggtgaa ggggtgtcccc ctgaacctgc agattgacac ctatgactgt ggcttggggca 300
262 ctgagcgccct ggtacaccgt gctgtctgcc agatcaagat cttctgtgac aagggagctg 360
264 agaggaagat gcgcgatgac gagcggaagc agttccggag gaagggtcaag tgccctgact 420
266 ccagcaacag tggcgtcaag ggctgcctgc tgtcgggctt caggggcaat gagacgacct 480
268 accttcggcc agagactgac ctggagacgc caccgctgct gttcatcccc aatgtgact 540
270 tctccagcct gcagcggctt ggaggggcag cccctcggc aggaccagc agtccaaca 600
272 ggctgcctct gaagcgtacc tgcctgccct tcactgagga gtttgagcct ctgccctcca 660
274 agcaggccaa ggaaggcgac cttcagagag ttctgtgta tgtgcggagg gagactgagg 720
276 aggtgtttga cgcgctcatg ttgaagaccc cagacctgaa ggggctgagg aatgcgatct 780
278 ctgagaagta tgggttccct gaagagaaca ttacaaagt ctacaagaaa tgcaagcgag 840
280 gaatcttagt caacatggac aacaacatca ttcagcatta cagcaaccac gtcgccttcc 900
282 tgctggacat gggggagctg gacggcaaaa ttcagatcat ccttaaggag ctgtaaggcc 960
284 tctcgagcat ccaaaccctc acgacctgca agggggccagc agggacgtgg cccacgcca 1020
286 cacacaacct ctccacatgc ctccagcgtg ttacttgaat gccttccctg aggggaagagg 1080
288 cccttgagtc acagaccac agacgtcagg gccagggaga gacctagggg gtccccctggc 1140
290 ctggatcccc atggtatgct tgaatctgct ccctgaactt cctgccagtg cctccccgta 1200
292 ccccaaaaca atgtcaccat gggtaccacc taccagaag actgttccct cctcccaaga 1260
294 cccttgtctg cagtgggtgct cctgcaggct gcccgtaaag atggtggcgg cacacgctcc 1320
296 ctcccgacgc accacgccag ctggtgcggc cccactctc tgtcttccct caacttcaga 1380
298 caaaggattt ctcaaccttt ggtcagttaa cttgaaaact cttgattttc agtgcaaatg 1440
300 acttttaaaa gacactatat tggagtctct ttctcagact tctcagcgc aggatgtaaa 1500
302 tagcactaac gatcgactgg aacaaagtga ccgctgtgta aaactactgc cttgccactc 1560
304 actgttgtat acattttctta tttacgattt tcatattgta tataatatata taaatatact 1620
306 gtatatatat gcaacatttt atatttttca tggatatgtt tttatcattt caaaaaatgt 1680
308 gtatttcaca tttcttggac ttttttttagc tgttattcag tgatgcattt tgtatactca 1740
310 cgtgggtattt agtaataaaa atctatctat gtattacgtc ac 1782

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313 &lt;210&gt; SEQ ID NO: 7

314 &lt;211&gt; LENGTH: 195

315 &lt;212&gt; TYPE: PRT

316 &lt;213&gt; ORGANISM: Homo sapiens

318 &lt;400&gt; SEQUENCE: 7

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325 20 25 30
328 Gly Asn Glu Thr Thr Tyr Leu Arg Pro Glu Thr Asp Leu Glu Thr Pro
329 35 40 45
332 Pro Val Leu Phe Ile Pro Asn Val His Phe Ser Ser Leu Gln Arg Ser
333 50 55 60
336 Gly Gly Ala Ala Pro Ser Ala Gly Pro Ser Ser Ser Asn Arg Leu Pro
337 65 70 75 80
340 Leu Lys Arg Thr Cys Ser Pro Phe Thr Glu Glu Phe Glu Pro Leu Pro
341 85 90 95
344 Ser Lys Gln Ala Lys Glu Gly Asp Leu Gln Arg Val Leu Leu Tyr Val
345 100 105 110
348 Arg Arg Glu Thr Glu Glu Val Phe Asp Ala Leu Met Leu Lys Thr Pro
349 115 120 125
352 Asp Leu Lys Gly Leu Arg Asn Ala Ile Ser Glu Lys Tyr Gly Phe Pro
353 130 135 140

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356 Glu Glu Asn Ile Tyr Lys Val Tyr Lys Lys Cys Lys Arg Gly Ile Leu
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360 Val Asn Met Asp Asn Asn Ile Ile Gln His Tyr Ser Asn His Val Ala
361                      165                      170                      175
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374 <212> TYPE: DNA
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382 gccatgatga gagtcaatgg agatgatgag agtggttgcgg ccttgagctt cctctatgat      180
384 tactacatgt cgatgctctt cccagatata ctgaaaacct ccccggaacc cccatgtcca      240
386 gaggactacc ccagcctcaa aagtgacttt gaatacaccc tgggctcccc caaagccatc      300
388 cacatcaagt caggcgagtc acccatggcc tacctcaaca aaggccagtt ctaccccgctc      360
390 accctgcgga cccagcagg tggcaaaggc cttgccttgt cctccaacaa agtcaagagt      420
392 gtggtgatgg ttgtcttcga caatgagaag gtcccagtag agcagctgag cttctggaag      480
394 cactggcatt cccggcaacc cactgccaag cagcgggtca ttgacgtggc tgactgcaaa      540
396 gaaaacttca aactgtgga gcacattgag gaggtggcct ataatgcaact gtcctttgtg      600
398 tggaaagtga atgaagaggc caaggtgttc atcggcgtaa actgtctgag cacagacttt      660
400 tcctcacaaa aggggggtgaa ggggtgtccc ctgaacctgc agattgacac ctatgactgt      720
402 ggcttgggca ctgagcgctt ggtacaccgt gctgtctgcc agatcaagat cttctgtgac      780
404 aaggggagctg agaggaagat gcgcgatgac gacgggaagc agttccggag gaaggtaag      840
406 tgccctgact ccagcaacag tggcgtaag ggctgcctgc tgcgggctt caggggcaat      900
408 gagacgacct accttcggcc agagactgac ctggagacgc caccctgctt gttcatcccc      960
410 aatgtgcaact tctccagcct gcagcggctt ggagggagcc tccagcagcc aggggctcct      1020
412 ctcatTTTTcc tgcgtgtgat ggaaaatgtc tttttcaact cattgcaggc agccccctcg      1080
414 gcaggaccca gcagctccaa caggctgcct ctgaagcgta cctgctcgcc ctactactgag      1140
416 gagtttgagc ctctgccttc caagcaggcc aagggaaggc accttcagag agttctgctg      1200
418 tatgtgcgga gggagactga ggaggtgttt gacgcgctca tgttgaagac cccagacctg      1260
420 aaggggctga ggaatgcgat ctctgagaag tatgggttcc ctgaagagaa catttacaaa      1320
422 gtctacaaga aatgcaagcg aggaatctta gtcaacatgg acaacaacat cattcagcat      1380
424 tacagcaacc acgtcgctt cctgctggac atggggggagc tggacggcaa aattcagatc      1440
426 atccttaagg agctgtaa
429 <210> SEQ ID NO: 9
430 <211> LENGTH: 485
431 <212> TYPE: PRT
432 <213> ORGANISM: Homo sapiens
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440 Lys Phe Ser Tyr Thr Ser Glu Asp Glu Ala Trp Lys Thr Tyr Leu Glu
441                      20                      25                      30
444 Asn Pro Leu Thr Ala Ala Thr Lys Lys Ala Met Met Arg Val Asn Gly Asp
445                      35                      40                      45

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**Please Note:**

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:17; N Pos. 63,195,259,263,347,367,389,459,464,483,505  
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 Seq#:20; N Pos. 1,6,13,15,20,21,28,29,34,52,53,171,228,255,308,364,415,425  
 Seq#:20; N Pos. 434,1171,1212,1220,1224  
 Seq#:22; N Pos. 3,8,703,744,754,759,777,784,805,824,831,850,861,864,875,879  
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 Seq#:36; N Pos. 268,290,295,324,325  
 Seq#:41; N Pos. 175,194,292,297,302  
 Seq#:46; N Pos. 52,84,119,215,216  
 Seq#:48; N Pos. 45,206

**Invalid <213> Response:**

Use of "Artificial" only as "<213> Organism" response is incomplete, per 1.823(b) of New Sequence Rules. Valid response is Artificial Sequence.

Seq#:59,60,61,62,63,64,65,66,67

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L:12 M:270 C: Current Application Number differs, Replaced Current Application Number  
L:13 M:271 C: Current Filing Date differs, Replaced Current Filing Date  
L:1085 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17 after pos.:60  
M:341 Repeated in SeqNo=17  
L:1114 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:18 after pos.:0  
M:341 Repeated in SeqNo=18  
L:1176 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:20 after pos.:0  
M:341 Repeated in SeqNo=20  
L:1250 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:22 after pos.:0  
M:341 Repeated in SeqNo=22  
L:1305 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23 after pos.:0  
M:341 Repeated in SeqNo=23  
L:1719 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:27 after pos.:0  
M:341 Repeated in SeqNo=27  
L:1774 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:28 after pos.:0  
M:341 Repeated in SeqNo=28  
L:1829 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:29 after pos.:0  
M:341 Repeated in SeqNo=29  
L:1880 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:30 after pos.:0  
M:341 Repeated in SeqNo=30  
L:2668 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:36 after pos.:240  
M:341 Repeated in SeqNo=36  
L:3089 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:41 after pos.:120  
M:341 Repeated in SeqNo=41  
L:3458 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:46 after pos.:0  
M:341 Repeated in SeqNo=46  
L:3510 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:48 after pos.:0  
M:341 Repeated in SeqNo=48